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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,981	05/10/2001	Stephen D. Heizer	COMP:0201/VAN P00-3228	4897
7590 02/03/2004 LEGAL DEPARTMENT M/S 35 P.O. BOX 272400 FT. COLLINS, CO 80527			EXAMINER LEFKOWITZ, SUMATI	
			ART UNIT 2112	PAPER NUMBER 5
DATE MAILED: 02/03/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/852,981

Applicant(s)

HEIZER ET AL.

Examiner

Sumati Lefkowitz

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-37 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 6, 8, 10, 11, 13-15, 18, 19, 23, 26, 27, and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Bailis et al., 6,434,652 (hereinafter Bailis).

As to claims 1-4, 6, 8, 10, 11, 13-15, 18, 19, 23, 26, 27, and 29-31, Bailis discloses a processor-based device (i.e., processor base system 10) comprising a power supply (i.e., power supply 12) to generate power for the processor-based device, a peripheral connector (i.e., card connector socket 3) to connect to a peripheral device (i.e., hot plugged card 2) and a control circuit (i.e., hot plug subsystem 16) coupled to the power supply and the peripheral connector, the control circuit being configured to control application of power from the power supply to the peripheral device when the peripheral device is connected to the peripheral connector while the power supply is generating power (note column 2, line 43 – column 3, line 10 and abstract), wherein the control circuit is configured to disable access from the processor-based device to the peripheral device until voltage applied to the peripheral device from the power supply reaches a

Art Unit: 2112

predetermined threshold (i.e., if card power is good), wherein the control circuit is configured to monitor voltage applied to the peripheral device from the power supply and to enable access from the processor-based device to the peripheral device when the voltage reaches a predetermined threshold (note column 2, line 57 - column 3, line 3 and column 7, lines 4-12 and column 7, line 59 – column 8, line 22, wherein the fact that the card bus switch is not enabled until the card power is determined to be good reads on disabling access to the inserted peripheral device until the voltage on the peripheral device reaches a threshold and enabling access to the peripheral device when the voltage does reach the predetermined threshold), wherein the control circuit receives a signal (i.e., card present signal) from the peripheral device when the peripheral connector is connected to the peripheral device (note column 7, lines 20-28) and wherein the control circuit is configured to control application of power to the peripheral device in response to the signal (note column 7, line 40 – column 8, line 22), comprising a processor in communication with the control circuit (note column 3, line 62 – column 4, line 14), wherein the processor-based device is a desktop computer, or a server, or an Internet appliance (note column 3, lines 26-29), and further discloses a method for hot-plugging a peripheral device to a processor-based device, the method comprising the acts of detecting connection of a peripheral device to a processor-based device while the processor-based device is powered and controlling application of power from the processor-based device to the peripheral device in response to detecting connection (note column (note column 7, line 40 – column 8, line 22), comprising the acts of monitoring voltage applied to the peripheral device while controlling application of power and enabling access from the processor-based device to the peripheral device when the monitored voltage reaches a predetermined threshold, comprising the act of monitoring the

Art Unit: 2112

voltage applied to the peripheral device while controlling application of power and prohibiting access from the processor based device to the peripheral device until the monitored voltage reaches a predetermined threshold (note column 2, line 57 - column 3, line 3 and column 7, lines 4-12 and column 7, line 59 – column 8, line 22, wherein the fact that the card bus switch is not enabled until the card power is determined to be good reads on disabling access to the inserted peripheral device until the voltage on the peripheral device reaches a threshold and enabling access to the peripheral device when the voltage does reach the predetermined threshold), comprising the act of connecting the peripheral device to the processor based device (note column 7, lines 20-28), further comprising a first and second peripheral connectors (i.e., connector section 2' and connector socket 3, respectively).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 2112

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, 6,308,233 in view of Bailis et al., 6,434,652 (hereinafter Bailis).

As to claims 1-3, Park discloses a main device comprising a power supply (i.e., Vcc of column 3, lines 15-17) to generate power for the main device, a peripheral connector (i.e., inherent to insertion/extraction of board into system) to connect to a peripheral device (i.e., board) and a control circuit (i.e., circuit of Figure 1) coupled to the power supply and the peripheral connector, the control circuit being configured to control application of power from the power supply to the peripheral device when the peripheral device is connected to the peripheral connector while the power supply is generating power (note column 2, lines 12-18 and column 3, lines 10-65), wherein the control circuit is configured to disable access from the main device to the peripheral device until voltage applied to the peripheral device from the power supply reaches a predetermined threshold (note column 2, lines 12-18 and column 3, lines 10-65), wherein the control circuit is configured to monitor voltage applied to the peripheral device from the power supply and to enable access from the main device to the peripheral device when the voltage reaches a predetermined threshold (note column 2, lines 12-18 and column 3, lines 10-65).

Park fails to disclose that the main device is a processor-based device.

Bailis discloses that the main device is a processor-based device (i.e., processor base system 10).

Art Unit: 2112

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of a processor-based device, as Bailis teaches, in the system of Park so as to allow intelligent, processor-based devices to interface with hot plugged devices.

6. Claims 5, 7, 9, 12, and 20-22, 28, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailis et al., 6,434,652 (hereinafter Bailis) in view of Falkenburg et al., 6,311,242 (hereinafter Falkenburg).

As to claims 5, 7, 9, 12, and 20-22, 28, and 32-37, Bailis fails to disclose that the power supply comprises a battery or that the processor based device is a PDA or laptop or cell phone or that the peripheral device is an option pack or storage device or hard drive or modem.

Falkenburg discloses portable, processor-based devices, which include PDAs, laptops and cell phones, that allow for hot plugging of peripheral devices (note column 2, lines 4-18) and that the power supply for supplying power to the inserted peripheral device is a battery (wherein it is inherent that the power supply of a portable device would be some kind of battery since the device is portable).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of a portable processor based device and its respective battery, as Falkenburg teaches, in the system of Bailis so as to allow for greater mobility and convenience in the use and transport of the processor-based device.

Falkenburg also discloses that the peripheral device is an option pack or storage device or hard drive or modem (note column 1, lines 41-53).

Art Unit: 2112

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the peripheral device be an option pack or storage device or hard drive or modem, as Falkenburg teaches, in the system of Bailis so as to expand the capabilities of the processor-based device.

7. Claims 16, 17, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailis et al., 6,434,652 (hereinafter Bailis) in view of Clemo, 5,714,809.

As to claims 16, 17, 24, and 25, Bailis fails to disclose that the act of controlling application of power comprises the act of limiting rise of voltage applied to the peripheral device from the processor based device or limiting rise of current supplied from the processor based device to the peripheral device.

Cleomo discloses that the act of controlling application of power comprises the act of limiting rise of voltage and current applied to the peripheral device (note column 11, line 39 – column 12, line 40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to limit the rise of current and voltage to the peripheral device, as Clemo teaches, in the system of Bailis so as to minimize damage to the peripheral device caused by current/voltage surges and spikes.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as the prior art teaches or suggests hot plugging and/or controlled application of power to inserted devices.

Art Unit: 2112

US Patents:	6,535,944	Johari et al.	6,269,416	Meier et al.
	6,125,417	Bailis et al.	5,898,844	Thompson
	5,809,256	Najemy	5,584,030	Husak et al.
	5,572,395	Rasums et al.	5,568,610	Brown
	5,530,810	Bowman	5,530,302	Hamre et al.
	5,317,697	Husak et al.	5,272,584	Austruy et al.
	5,157,771	Losi et al.		

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumati Lefkowitz whose telephone number is 703-308-7790.

The examiner can normally be reached on Monday-Friday from 6:00-2:30.

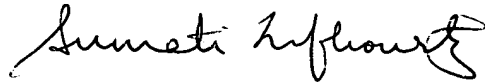
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at 703-305-4815.

The fax phone numbers for the organization where this application or proceeding is assigned are:

703-746-7238	for After-Final communications
703-872-9306	for Official communications
703-746-5661	for Non-Official/Draft communications

Art Unit: 2112

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A handwritten signature in black ink, appearing to read "Sumati Lefkowitz". The signature is fluid and cursive, with a large, stylized initial 'S'.

Sumati Lefkowitz
Primary Examiner
Art Unit 2112

sl
January 28, 2004